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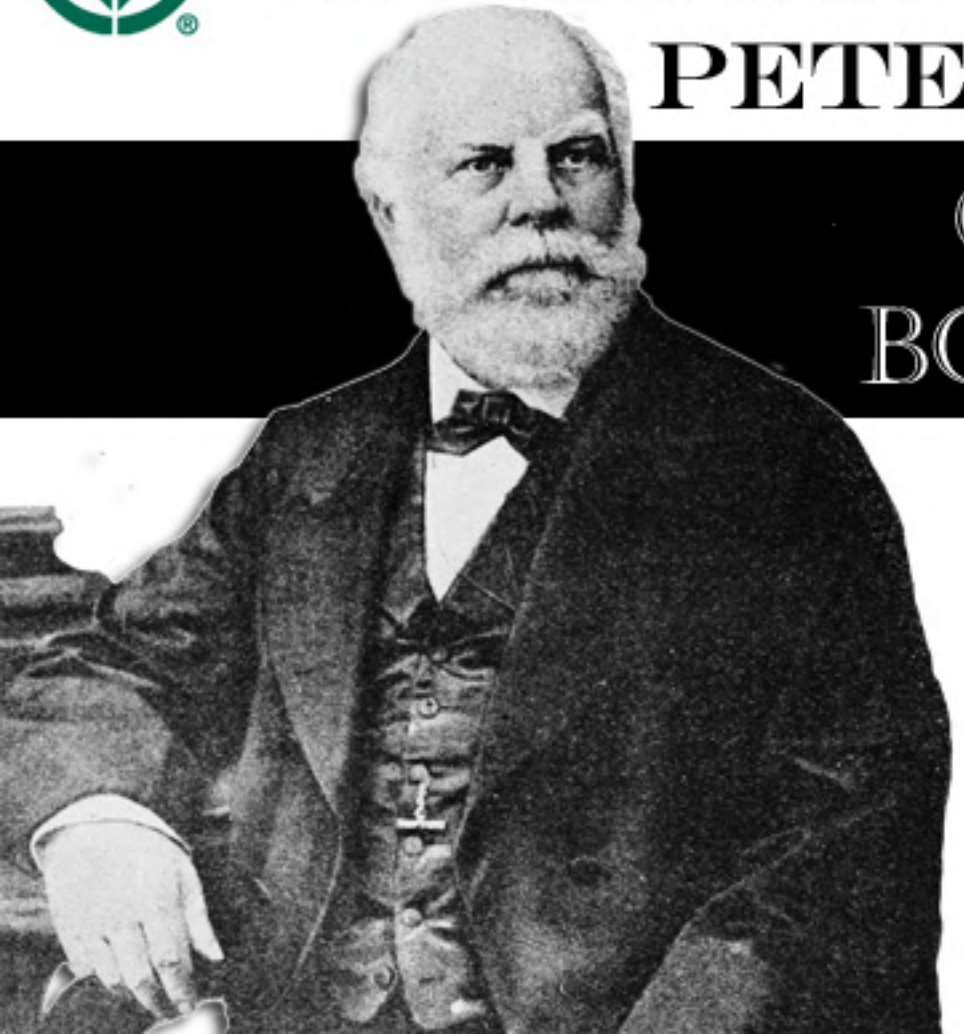

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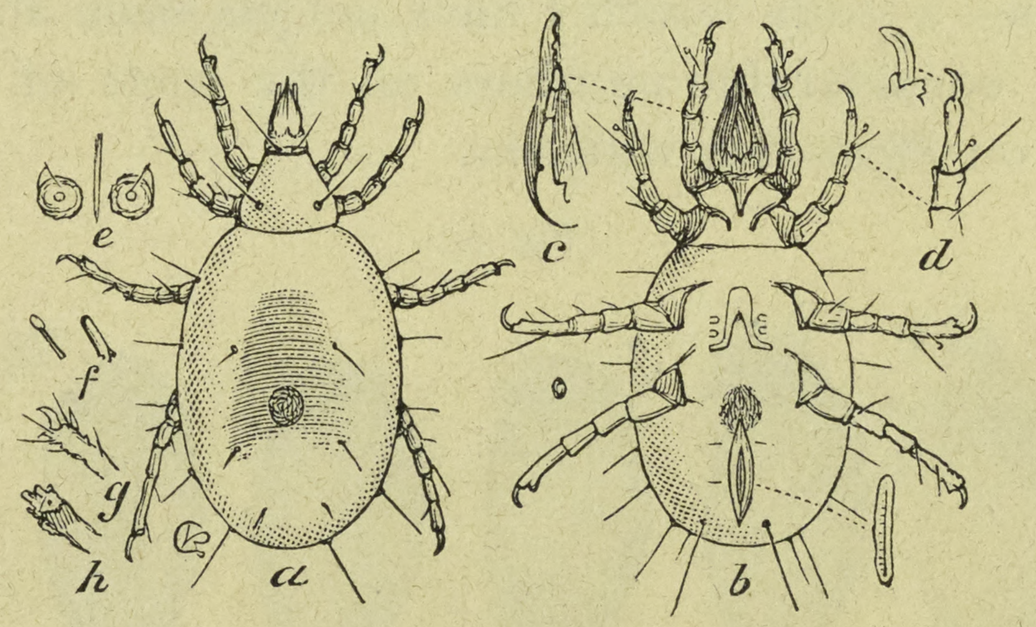
267-271

Descriptions of two new subterranean Mites.

By CHAS. V. RILEY.

[*Fig.* 8.]



TYROGLYPHUS PHYLLOXERÆ—*a*, *b*, dorsal and ventral views; *c*, enlarged jaw and palpus; *d*, tarsus; *e*, anal tubercles of male; *f*, forms of tarsal projections; *g*, *h*, tarsal terminations.

TYROGLYPHUS PHYLLOXERÆ, Riley & Planchon, fig. 8.—When full grown 0.03 inch long, and about half as broad. Color pale yellowish, with a brownish medio-dorsal circular spot, around which there extends a gamboge-yellow discoloration, in some specimens

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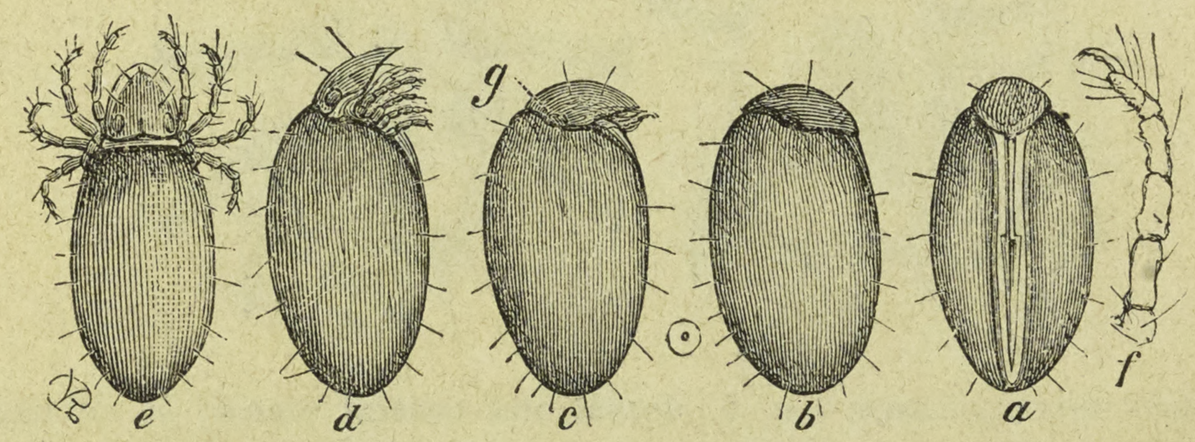
Many of the characters enumerated belong to all the species of the genus; and in studying large numbers it is difficult to give any specific diagnosis which shall at once distinguish it from all other described species. To do so will require continued study of all the stages from the moment of hatching, as well as of its *Hypopus* form—a study which I have not yet been able to give.

Found in considerable numbers on the roots of grape-vines, and feeding on *Phylloxera vastatrix*.

[*Fig.* 9.]



HOPLOPHORA ARCTATA—*a*, ventral view closed; *b*, side view closed; *c*, do. slightly open; *d*, do. more open; *e*, dorsal view, with legs fully extended.

HOPLOPHOR

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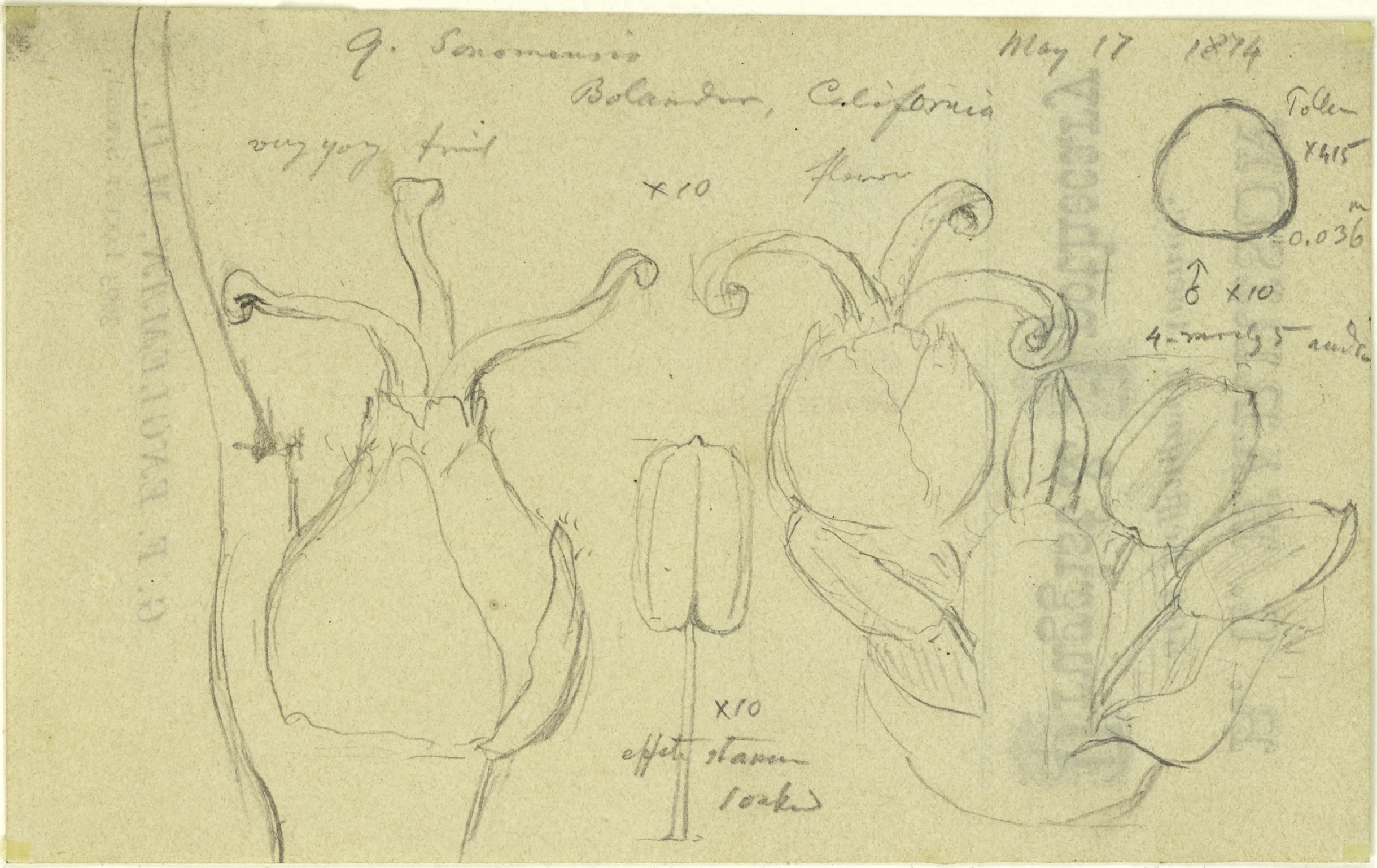

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508 Leffingwell Avenue,

Druggist & Apothecary

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G. F. ENGLEMAN, M.D.,

3003 LOCUST STREET.

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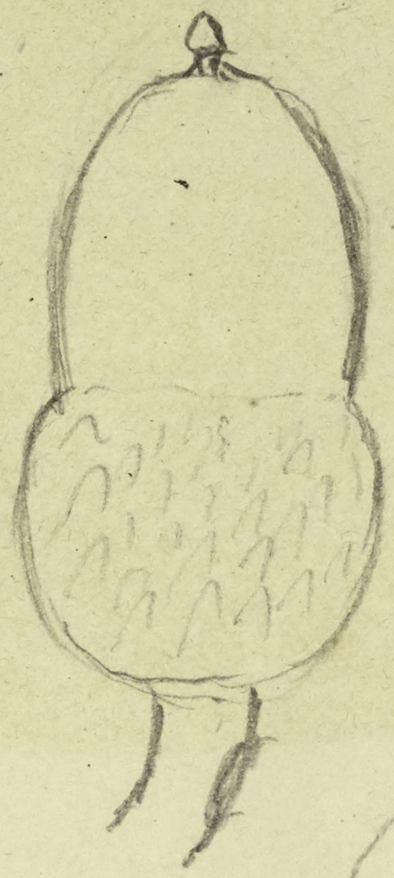
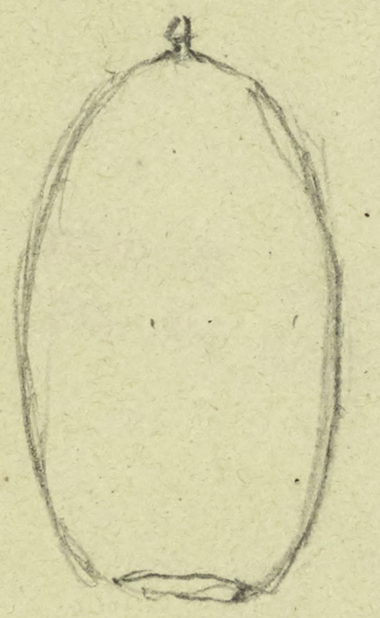
Q. Saccharina
Balanda

May 19. 1874





diameter 2/4 lines
the attached

top of arrow ×10

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Q. Sonomensis

Calif

April 24 1876

× 10

× 4

folding of lobes of leaf —

young leaf flat

VTEX TELLER

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ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

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when the sets are planted; the ground ought not to have rank manure—wood-ashes and pure undunged loam will alone produce an excellent crop.

Where new Asparagus beds are to be made, now is the time; the ground should be rather moist than dry, and be trenched two feet deep, mixing in with it a good quantity of stable dung, and, if the ground be inclining to sand, add some salt; the beds should be marked out four feet wide, and the alleys about two feet. If pegs are driven down at the corners of the beds permanently, they will assist operations in future years. Having marked the positions of the beds and procured a stock of two year old plants, place them on the soil nine inches apart in rows one foot asunder, making three rows in each bed; then cover the whole with soil from the alleys and rich compost a couple of inches.

To have Turnips good in spring they must be sown very early; they are hardy, and must be put in as soon as the ground can be caught right.

Parsley delights in a rich gravelly loam, and should be sown very early.

Parsnips, another crop which should receive

Herbs of all kinds are best attended [illegible] season—a good collection is a good thing.

The Carrot will thrive in soil similar to the Beet; lime is an excellent manure for it—we use the long Orange. Celery may be sown about the end of the month, in a bed of very light rich soil, and Tomatoes, Egg Plants and Peppers sown in pots or boxes, and forwarded. It is as bad to be too early with these as too late, as they become stunted.

GREENHOUSE.

This is the season when the most plants will require re-potting previous to their making their new season's growth. The difficulty always is to find the increased room the re-potting requires. Usually room is made by turning out the bedding plants into hot-bed frames, protecting them from frosts at night by mats. Much may be gained also by not increasing the size of pots, as pointed out by a correspondent; but merely changing the soil; where, however, plants are not shortened in previous to the repottal, care must be exercised in shaking out the soil, or serious results may follow. The ball of roots should be soaked in water, so that the particles of soil may fall away easily from the roots. The soil for potting, too, should be nearly quite dry, and then rammed into the pots about the roots very hard and tight. Immediately after potting, the plant should be well watered, and placed in a close and partially shaded atmosphere till the roots take hold of the new soil again. Where the roots are not much disturbed these precautions are unnecessary. In addition to dry soil for potting it should be fibrous, that is, it should have a good portion of old fine roots through it to give it a spongy texture. It is this which gives the top soil of a pasture such value in the eye of a good gardener for potting purposes, as the innumerable fine roots of the grass through it renders it particularly spongy or "fibrous" as the technical term is.

Look out for a good stock of bedding plants in time; by striking cuttings of such things as grow rapidly and speedily, and sowing seeds of such annuals as may be advanced to advantage.

Fuchsias may now be readily struck from the young growth of the old plants, which will make greenhouse. In a few weeks they will sprout, when they should be shaken out, divided with a piece of root to each sprout, and separately potted in 4-inch pots.

Pansies are coming now into flower. They like an airy frame, where they will not be roasted at mid-day nor exposed to drying winds, and yet have a free circulation of air and plenty of light. Planted out in such a frame, and the old shoots cut away as soon as the plant has done flowering, the plants will keep healthy over till the next season. Superior varieties can be raised from seed. Choose those with the roundest petals, best colors, and the first flowers that open, to raise seed from.

Camellias will require rather more water while growing than at other times. Just before they grow is a good season to graft. Cut down the stock, cleft graft in the crown, wax, and plunge in a bottom heat of 70°. A great many kinds may be had on one plant by the bottle system: A shoot about to grow is obtained, and attached to the stock as in inarching, the end of the shoot

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for what a vine should be; the whole cane may be buried down in the soil to where the strong shoots spring from, and the young wood of last season trained up from this. The plant will then recover its good appearance quite as well as by cutting down, with the advantage of not sacrificing a year's crop of fruit. Grapes that have become weak from age may be renewed by layering down a branch some feet just under the surface, and then cut back, so that one good eye only be left at the surface of the soil.

Apple trees in orchards are often so thickly matted with branches, that none of the leaves get their full share of light and air. This should never have been permitted, but as it is, a vigorous thinning should be effected, though the axe and saw be called in to effect it. Sprouts will come out thick next summer, after such pruning, but they should be torn out while green.

Peaches, it is said, grow too strong generally, and should not be pruned; but the same rule holds good as with apples. Thin out all weak or crowded shoots. Our experience is that if a Peach tree's constitution is not impaired by bad treatment, it seldom grows too strong for its own good.

Plum and Cherry trees are often injured by the knot. These can often be renovated by a severe pruning. Cutting away all branches on which the swelling came the last season, a new growth will follow, which never has any knots on that season. The spores of the knot fungus, however, find their nests, and the next season grow, and then, if the trees are examined in May, the swelling will appear as soft frothy masses, which, if then taken out by the finger and thumb, usually destroys the crop at once and forever. Horticulture has made great progress the few past years in many of these things; and now, if Entomology shall prove its great value to gardening, by fixing the end of curculio, as mycology has, in its way, done us good, America will be the paradise of fruit growers.

In setting out Raspberries and Blackberries, remember the hints we once before gave, not to set out deeper than the plant grew before. A currant or gooseberry set deep, will root from the cane, but a raspberry will not. The new buds have to come up from the roots. Thousands of these plants die every year. In nurseries there are two kinds of plants—plants which are simply suckers, taken off in winter, and plants taken up as they sprout during summer, and set out to grow awhile before fall. These are called transplanted plants, and are worth much more than others. Transplanted plants seldom die. Both Raspberries and Blackberries should be cut down within six inches or a foot before planting. Transplanted plants may be left longer, and be allowed to bear a little; but if these plants are allowed to produce much the first year after setting out, the suckers for next year are very weak. Little is gained by having fruit the first year.

Strawberries, like Raspberries, are often destroyed by planting deep. Only the fibrous roots should be set under the ground—never the bud. Sometimes the excuse is that the plant will not set firm in the ground without; in this case, make the ground firm by rolling or beating down before planting.

People often complain that their Currants drop their leaves early, in which case they don't mature a very large crop the next season. The Currant is a native of cool regions, and the coolest ground should always be devoted to it. The leaves do not fall early then. In this section the currant borer is the worst insect pest About this season the larvæ will be found in the pith, and the shoots containing them should be cut off and burned. If the shoots look weak and starved, like on plants, which have some of them very strong and vigorous. it is quite likely they have the larvæ of these borers in the weak ones. This can then be determined by examination.

VEGETABLE GARDEN.

In the open ground Peas and Potatoes receive the first attention. Then Beets and Carrots. Then Lettuce, Radish, Spinach, Onions, Leeks and Parsley. Beyond this, unless in more favored latitudes than Pennsylvania, little can be done till the first week in April There is nothing gained in working soil, until it has become warm and dry.

Those who have no Spinach sown in the fall should do that right away; no amount of stable manure but will be a benefit to it, though guano, in even smallish doses, will kill it. Guano produces excellent Cabbage, mixed with the ground while it is being dug for that crop. Cabbage, by the way, may be put in as soon as the ground is ready; and Potatoes are better in before the beginning of next month, if the ground is not too wet; many plant Cabbage between the Potato rows.

Onions are better put in early, but the ground ought to be dry, and trodden or beaten firm

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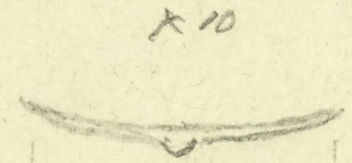
April 24 '76

G. Wislizeni

Mrs Dible No 1090, Brewer



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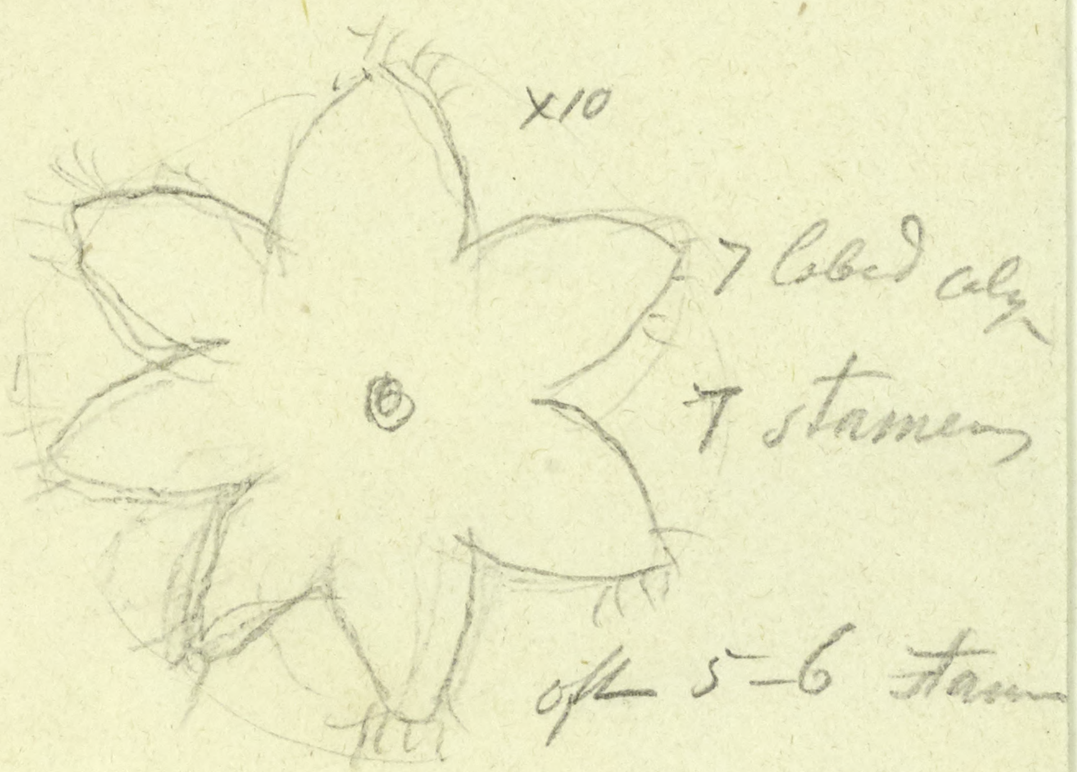

catkins at base of bundle

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G. wislizeni

May 19 1864

Bolander Oct 1865

diameter of acorn
over 3 times
the attachment

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G. wiligeni

Apr 3° 1874

Bolander 1866

×10

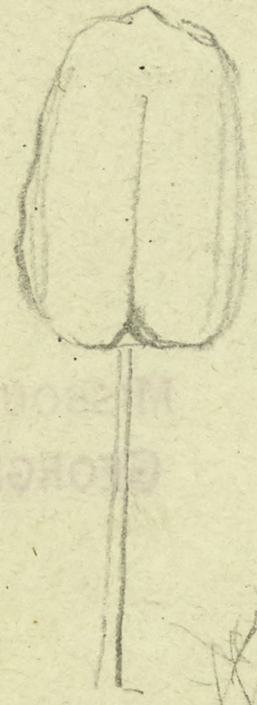
calyx × naked or with few tip hairs

axis of anvent glabrous or nearly so

stellate hairy when quite young no hairs visible even then

×10

3–6 stamens mostly 4



×10

past flowering

stipules, ×2

obovate lanceolate

bearded at Tip

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Alex. Leitch,

APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.

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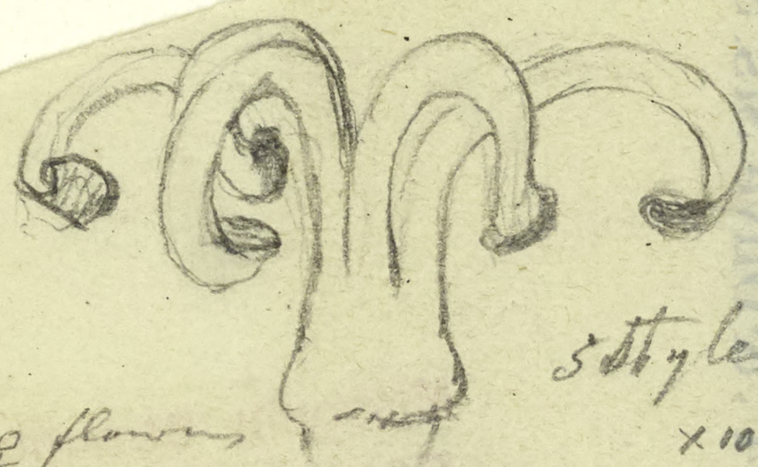
April 3 1874

× 10

These two ♀ flowers together



5 styles! also sent × 10

5 Styles

♀ writhen

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Alex. Le

APOTHECARY & C

Cor 4th & Olive Sts. St

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Guerneville Sonoma Co
Calif. Bolander

May 17 1874

closely resembling
in flowers G. Sonomensis,

Collen
×415

×10

×10

Hypsomeria
5-andra

Affin flowers, soaked

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Deutsche Apotheke.

HENRY DIERS,

APOTHECARY,

South East Corner Fifth aud Biddle Streets,

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Quercus confertifolia? April 14 1876

X 10

buds & parts
scarcely hairy

anthers 4
deltoidly
tuberculate

Capt Smith, San Francisco
Mts

= Hb Torrey

Martins

pubescent
stellate

no bracts! fallen?

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quercus Confertifolia Torr Ard Bd.

male fl. San Francisco Martin Capt E.K. Smith

Young fruit Wright coll 1849 A.A. Gray & the Army

" " Aschott Sierra del Rosario to 28 July 1855

leaves only Rothrock

Leaves 2½ - 3½ inches long, ½ - 1 inch wide

petiole cuticle revolute sparingly with a few minute hairs

petiole 3 - 5 or 6 lines long

Rep Leaves at first above (pubescent) sprinkled stellate very short hairs = soon glabrate below densely tomentose prominent rib

fruit pedicels very short branchlets tomentose cinereous = old glabrate

Cup scales triangular ovate, obtuse, bright brown slightly pubescent towards base

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Geo. B. Frese
DRUGGIST & PHARMACIST
NEAR GARRISON AVE.
3003 OLIVE ST.
ST. LOUIS, MO.

Shell tomentose inside
abortive ovules superior.
— Perhaps similar to apricots &
maturing fruit in one season.
but quite distinctly
belonging to the black
Oaks. —

Stem tomentose
Fruit annual ∨ ovule superior

DR. GEO. ENGELMANN,
OFFICE- 2013 S. 5th St. RESIDENCE 3003 Locust St.

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Fagaceae

May 11 1878

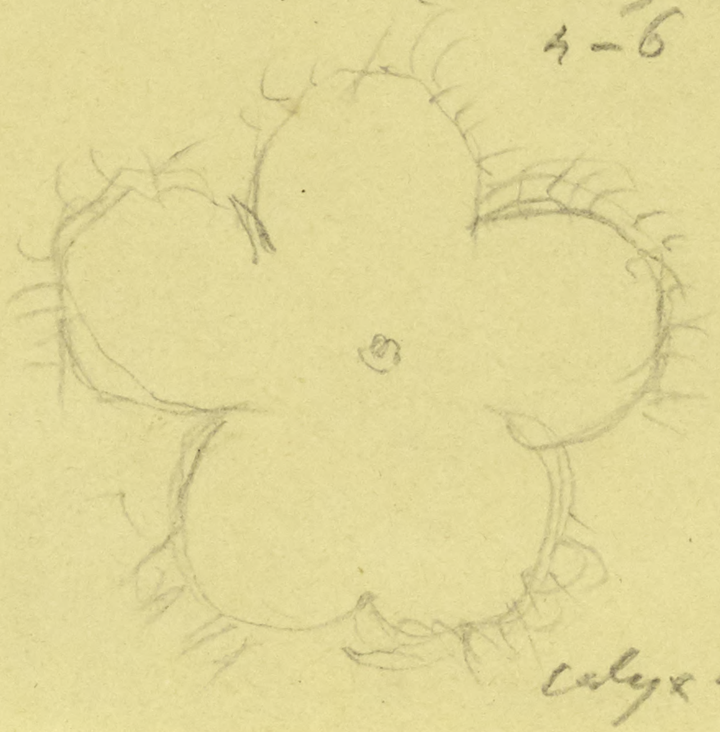
Evergreen Devark - Oak

Leaves entire or spinulose - dentate
obtuse at base oval all cuspidate
10 - 14 Cm long,

x10

Stamen (usually 5)
4 - 6

x10



calyx 4 or 5 lobed

glandular articulate
hair on youngest
leaves — both sides

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Leitch & Corlies
WHOLESALE DRUGGISTS
South West Corner Fifth and Market Streets

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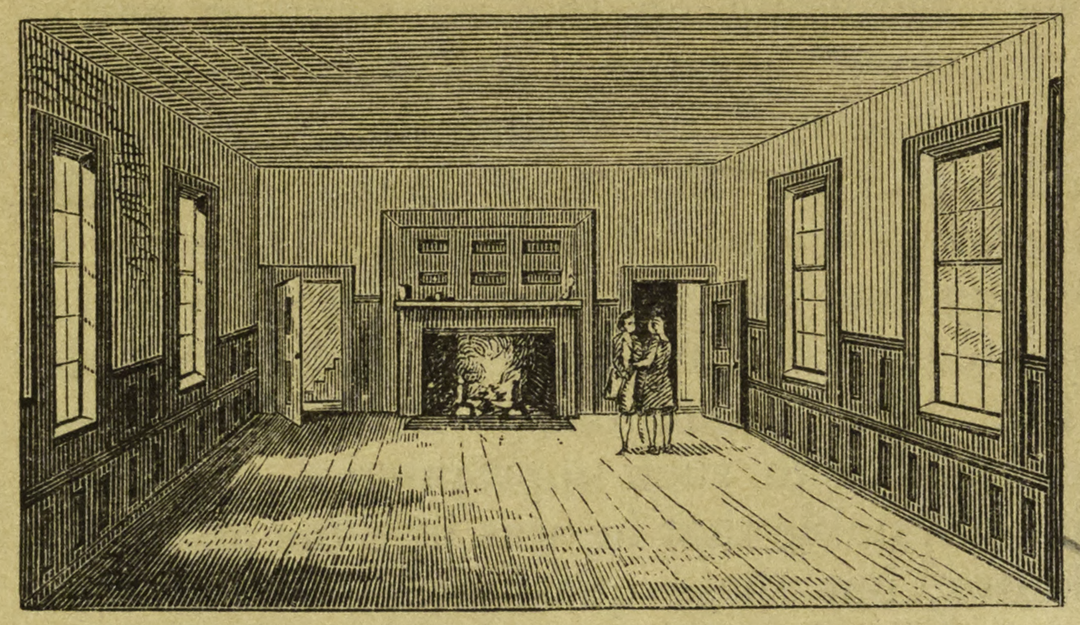
King and Parliament, and were sternly declared to be "dissolved." And the men who were thus imperiously addressed, who were dismissed by his Lordship with marks of his cold displeasure, as a schoolmaster dismisses his school-boys, were Jefferson, Henry, Mason, and Pendleton—the greatest names, in a word, of the time. A singular ceremony followed this scene. On the next evening the House of Burgesses gave a ball at the Old Raleigh Tavern, "to welcome Lady Dunmore and the rest of the Governor's family to Virginia!"—a proceeding which has been compared to the bow of a swordsman before crossing his adversary's weapon. Other interesting scenes connected with the Old Capitol must be sought for in the annals of the time. It was destroyed by fire in 1832, and only a few articles were rescued. Among these was the tall "Speaker's Chair," behind which was a red curtain, held aloft by an ornamental rod, and a remarkable antique stove covered with carvings. This chair and stove were removed to the Capitol of Richmond—the chair continuing to be that of the Speaker of the House of Delegates, and the stove taking its place near the statue of Washington by Houdon, in the rotunda of the Virginia Capitol.

the Palace were portraits of the King and Queen, and it seems that here, as well as in the Council Room of the Old Capitol, was transacted much of the public business.



"APOLLO ROOM," OLD RALEIGH TAVERN.

The ruins represented in the engraving are said to be the remains of the Governor's "guard-houses," though there is no authority for the supposition that an armed guard was posted to keep watch over Governor and Palace.

"The Palace," as it was called, had always played an important part in the festivities of Williamsburg—the resort of the gayest and wealthiest society of the colony. The elegance and attraction of this society were even recognized by Fauquier, Botetourt,

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with meeting in a grand supper at the Raleigh Tavern to conspire against him—with indulging on that occasion in undue "hilarity;" a satirical ballad on the subject was circulated in Williamsburg and London, and the Bishop of London wrote the clergy a severe letter, begging them not to "play the fool any more"—all of which is related on the authority of Bishop Meade. The Rev. Commissary Blair was never charged with such improprieties. It seems incontestable that he was irritable and combative, but these quasi-vices seem to have served both William and Mary and Bruton Church.

Duke-of-Gloucester street, the main thoroughfare of Williamsburg, was a straight, broad avenue, three-quarters of a mile in length, with the college at one end, and the "Old Capitol" at the other. The city had been originally laid out in the eccentric form of the two letters W and M, the initials of William and Mary, but the "city fathers" had the good sense to change the plan. There were two "Old Capitols," one built in the first years of the eighteenth century, and destroyed by fire in 1746, and a second

his room, and a cupola with a clock surmounted the edifice. A wall enclosed the grounds, and "a strong, sweet prison for criminals" rose near—also a debtors' prison, though it rarely had occupants, "the creditors being there generally very merciful." In the grounds might be seen "at public times a great number of handsom, well-dressed, compleat gentlemen," and, no doubt, roving students from William and Mary, fond of sight-seeing. Such was the first "Old Capitol built at the cost of the late Queen" Anne, and destroyed by fire in spite of the prohibition of "the use of fire, candles, and tobacco." The second building soon took its place, and witnessed the tumultuous scenes of 1774 and the succeeding years. It had already echoed with the thunders of the great debate on the Stamp Act in 1765, when Patrick Henry, a raw countryman, startled the Burgesses with his grand outburst, "Cæsar had his Brutus," etc., with which all are familiar. In the lobby, listening, was a young student of William and Mary College, named Thomas Jefferson, who afterward characterized the debate as most "bloody," and described the sudden

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